

which is 160 mm. This is somewhat below the facts, although the specimen is a little crushed and the diameter thereby increased. The ratio of the diameter of the whorl to that of the umbilicus is about 3.7:1. In respect to this ratio, as well as in the character and number of the ribs, and in other features (not including the septa) the form approaches very near to *Schloenbachia propinqua* (Stoliczka) from the Ootatoor group of southern India. As far as the septa on the California species can be seen, the resemblance holds true. The horizon from which the sample was obtained is probably the lower Chico, rather than the upper Chico as stated by the authors."

DESCRIPTION OF TWO NEW SPECIES OF MOLLUSCS FROM
THE WEST COAST OF NORTH AMERICA

BY G. WILLET

TURBONILLA (STRIOTURBONILLA) CAYUCOSENSIS, new
species. Pl. 3, figs. 2, 3.

Shell large, broadly elongate-conic, bluish-white in younger specimens, yellowish-white in adults. Nuclear whorls small, rounded, having their axis at right angles to the succeeding turns. Post-nuclear whorls somewhat flattened and shouldered at the summits. Surface marked by heavy, rounded, closely spaced, strongly protractive axial ribs, of which fourteen occur on each of the first eight whorls, sixteen on the ninth and tenth, eighteen on the eleventh, and twenty on the twelfth and last whorl. These ribs extend from the summit of the whorl to the periphery, where they merge and terminate. Intercostal spaces a little narrower than the ribs, also terminating at the periphery. On the type and other adult specimens the axial ribs extend over the base, becoming more or less feeble and uneven on the anterior portion. In immature specimens (ten whorls or less) the ribs terminate at the periphery. Entire

base and spire covered with fine spiral striations, visible only under a fairly strong lense. Aperture oval, posterior angle narrowly, obliquely truncated by the flattened summit. Outer lip thin, slightly contracted; inner lip slightly oblique and somewhat reflected. The type has twelve post-nuclear whorls and measures:—Length, 9 mm.; diameter, 2 mm.

The type, No. 1016, Collection Los Angeles Museum, and 24 additional specimens were taken by Mr. H. N. Lowe under stones on the beach at Cayucos, California, June, 1927. Paratypes are in the collections of the U. S. National Museum, Philadelphia Academy of Natural Sciences, H. N. Lowe, and the writer.

Remarks.—In general shell characters this species seems to resemble *T. attrita* Dall and Bartsch. It is easily differentiable from this species, however, by its larger size, as well as by its more protractive and different number of ribs. A study of the type series shows some individual variation in the width of the ribs and in their number. While most of the specimens are like the type in the latter character, in some specimens the increase in number of ribs occurs one whorl earlier.

LEPTOTHYRA ENGBERGI, new species. Pl. 3, fig. 4.

Shell small, globose, solid, either perforate or imperforate; whorls convex, marked by thread-like spiral riblets which are rendered minutely nodulous by the intersection of the growth lines. On the last whorl there are about thirty of these riblets. Aperture about half the height of the shell, almost circular, white to bluish-white within. Outer lip rather thin; inner lip thickened. Columella arcuate, flattened, without teeth. Color of shell dark brown to dull black in unworn specimens. Operculum of several whorls, shelly, concave, with nucleus a little anterior to the center and considerably nearer to the columella than to the outer lip. Alt. 3.3 mm. diam. 3.2 mm.

Type No. 1017 Collection Los Angeles Museum. Paratypes in collections of Dr. Engberg and the writer. The